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THE GAME BIRDS OF INDIA, BURMA AND CEYLON.

BY

E. C. STUART BAKER, F.L.S., F.Z.S., M.B.O.U., C.F.A.O.U.

PART XXXVII.

(With a plate.)

(Continued from page 597 of this Volume.)

Genus—CRYPTOPLECTRON.

Cryptoplectron Streubel, in Ersch. u. Gruber Allg. Encycl. 3, vol.

16, p. 291 (1842). Type Coturnix erythrorhyncha, Sykes.

The genus Cryptoplectron is very closely allied to Perdicula, but differs from that genus in many respects. The tail has only 10 feathers instead of 12; the tarsus is spurless; the bill is decidedly longer and less high, and the wing is shorter and more rounded; the first primary is equal to the 10th, and the 4th, 5th and 6th are sub-equal and longest.

There are only two species known and these are confined to India and possibly, the extreme North-West of Burma in the Chin Hills

South of Manipur.

The name *Microperdix* Gould, (B. of A. vii, pl. iii, 1862) by which this genus has hitherto been generally known is unfortunately antedated by *Cryptoplectron*, 1842, and accordingly the latter name must be used.

KEY TO SPECIES AND SUB-SPECIES.

- A.—Upper surface brown with black spots.
 - a. Throat white.
 - a. Darker and larger; wing 81 to 92

mm. .. C. e. erythrorhynchus.

p. Paler and smaller; wing 76 to 84

mm. C. e. blewitti, of p.

CRYPTOPLECTRON ERYTHRORHYNCHUS ERYTHRORHYNCHUS.

The Painted Bush Quail.

Coturnix erythrorhyncha Sykes, P.Z.S., 1832, p. 153, (Karli Valley, N. Konkan); Gray, III. Ind. Zool., II., pl. 44 (1834); Sykes, Trans. Z.S. II., p. 16, pl. I. (1841).

Perdix erythrorhyncha Blyth, J.A.S.B., XI., p. 808 (1842), (S.

India).

Perdicula erythrorhyncha Bonpte., Comp. Rend., XLII., p. 881 (1856); Jerdon, B. of I. III., p. 584 (1863); Bulger, P.Z.S., 1866, p. 571 (Nilgiris); Blyth, Ibis, 1867, p. 160; Blanf, ibid, 1867, p. 464, (Sironcha); Elwes, ibid, 1870, p. 528 (Cardamum Hills, Travancore); Fairbank, S. F. V., p. 409 (1877) (Palni Hills); David. & Wend., VII., p. 82 (1878), (Sholapur, Puna and Satara Hills).

Microperdix erythrorhyncha Gould, B. of A., VII., pl. 3 (1862); Hume, N. & Eggs, 1st ed., p. 548 (1873); Fairbank, S. F. IV., p. 262

(1876), (Khandala, Mahableswar).

Microperdix erythrorhynchus Hume & Marsh., Game-B., II., p. 123 (1879); Butler, S. F., IX., p. 428 (1880) (Bombay); id, Cat. B. S. Bombay, p. 69 (1880); Davis., S. F., X., p. 411 (1883), (Nilgiris, Mysore, Wynaad); Terry, ibid, X., p. 479 (1887), (Palni Hills); Oates, Hume's N. & E., III., p. 442 (1890); O-Grant, Cat. B. M., XXII., p. 203 (1893); id., Hand. B., Game-B. I., p. 156 (1895); Oates., Man. Game-B., I., p. 100 (1898); Blanf., Avifauna B. I., IV., p. 121 (1898); Davids., J. B. N. H. S., XII., p. 64 (1898), (N. Kanara); Oates, Cat. Eggs, B. M., I., p. 41 (1901); Bourdillon, Jour. B. N. H. S., XVI., p. 4 (1904), (Travancore); C. Primrose, ibid, XXIV., p. 597 (1916), (Nilgiris).

Cryptoplectron erythrorhynchus erythrorhynchus Stuart Baker, Hand-L. B. of I. E., p. 199 (1923).

Vernacular Names.—Kokni lowa, (Hind.); Kadai, (Tamil).

Description, Adult Male.—Forehead, lores, point of chin round the eye black; a broad band above the forehead and running back above the eye to the nape, white, sometimes spotted with black; crown black, mixed to a varying degree with brown and always brown on the centre of the occiput; upper parts brown tinged with olive and with large velvety black subterminal spots to each feather; scapulars, wing-coverts and innermost secondaries with white or creamy shaft-lines; the coverts to the outer edge of the wing become more and more cross-barred with rufous; the outer primaries are edged with rufous and the inner primaries barred with the same on the outer webs; the bars become more definite on the secondaries extending across both webs; tail feathers blackish brown, barred with rufous, the bars paler towards the tips; posterior ear-coverts hair-brown; anterior ear-coverts, cheeks, throat and sides of neck white surrounded by a narrow black band; remainder of lower parts chestnut, the upper breast washed with the colour of the back and the feathers sub-tipped with small black spots; sides of the breast, flanks and under tail-coverts with large subterminal blotches of black and with the feathers fringed with pure white.

Colours of Soft Parts.—Irides dull grey-brown, (probably in the young only) to brown, a light yellow-brown or hazel (in old birds only); bill, legs and feet rich red. Young birds have bill and legs a duller red, sometimes almost a brownish red.

Measurements.—Wing 81 to 92 mm.; tail 38 to 49 mm.; tarsus 25 5 to 27 mm.; culmen 14 to 16 mm. Nearly every specimen in the British Museum has a culmen full 15 mm. or over, but one bird from Travancore has it only 14 mm.

Female.—Head and throat with no black or white, these colours being replaced with dull rufous; the black marks on the crown and back are much smaller; the wings are marked with duller and paler rufous; the breast is immaculate rufous, the blotches on the flanks are smaller and there is little or no white on these parts.

Colours of Soft Parts.—As in the male, but duller.

Measurements.—Wing 84 to 89 mm.

Chick in Down.—"Pretty little dark things with three stripes of a very light cream colour extending down their backs." (Miss Cockburn.)

Distribution.—South-West India from the South of Travancore Northwards as far as Poona. Eastwards this little quail only extends throughout the various hill ranges of Mysore, Nilgiris, Palni Hills, Cardamon Hills, the Wynaad and throughout the Western Ghats. There is a specimen in the British Museum labelled "Madras".

Nidification.—This Little Quail breeds at all elevations throughout its range in suitable localities, that is to say, round about civilization, cultivation and open grassy land where there are also bushes and sufficient cover to hide the nests and eggs. Of nest there is really none at all, for the bird merely scratches a hollow in the ground under the shelter of a tuft of grass, a bush, or even under a clod, rock or boulder. It is apparently never placed in heavy cover of any kind whether tree forest, dense scrub or thick long grass. On the other hand it is occasionally placed practically in the open and not infrequently in among ferns, bushes and grass on the outskirts of gardens and compounds.

The number of eggs laid is not quite definite. Hume certainly accepted 10 as the full complement, and Darling, who was a reliable collector, says that he took as many as this in a clutch. Miss Cockburn gives the number as up to 14 but this may have been recorded merely on the strength of native assertions, notoriously unreliable. Probably 10 is the utmost number ever laid, and that only very exceptionally, the normal clutch being 5 to 7. I have tried for forty years, without avail, to obtain any certain record of anything over 7, and all the collectors who have been so kind as to help me have assured me that they have been unable to find any clutch more numerous than this.

The eggs are miniatures of those of the Grey Partridge, though they average broader in proportion. In colour they vary from almost white to a comparatively warm cafe-au-lait or buff, rarely with a faint olive tinge. They are never as white as are many eggs of Perdicula and never as deep a tint as some of the deepest eggs of Francolinus.

50 eggs average $31\cdot0\times23\cdot0$ mm. and the extremes are:—maxima, $34\cdot3\times24\cdot0$ mm. and $31\cdot1\times24\cdot3$ mm.; minima, $28\cdot1\times22\cdot4$ mm. and $31\cdot0\times22\cdot0$ mm.

It is difficult to define the breeding season; probably August to October are the favourite months, but in Travancore Bourdillon took eggs in January and February and again in July to September and in December; in the Nilgiris they breed from January to March again August to November and I have also 3 eggs taken at Kotagir in June. These Quails certainly breed twice in the year but probably most birds breed according to the monsoons, laying after the first break of the rains when insect life is most plentiful and the young when hatched are easily fed.

There appears to be nothing on record as to the male Painted Bush Quail's domestic habits; whether he is polygamous or monogamous; what part, if any, he takes in incubation or looking after the young, etc. Judging from its pugnacity alone one would expect it to be polygamous, at the same time, as both parents are found with the coveys after they are hatched it is probable that it is monogamous.

Habits.—The Painted Bush Quail seems to be found wherever the ground is broken up into low foothills and ravines and from these up to at least 6,000 feet or higher. It is common in the plateaus at 2,000 feet when these are not too flat or too densely covered with forest but it is not found in the true plains countries. It resorts to thin scrub, light deciduous forest with scanty bush and grass undergrowth, but its favourite resorts are cultivated tracks interspersed with patches of cover and with others of open waste land. Mr. A. P. Kinloch records it as being very numerous in the Lily Downs in Cochin Nelliampatty at 4,700 feet, being found round the edge of every shola. He writes:—

"These pretty birds are absurdly tame and seem even more deficient in intelligence than most Gallines. By sitting on a rock a few yards from the shola edge early in the mornings or late in the evenings and keeping still, I could repeatedly have knocked these birds over with a stick. They came within a

couple of feet of my boots on one occasion."

In the mornings and evenings it wanders about in the open, often on roadsides, in gardens or in cultivated fields and, except when breeding, is found in little coveys of half-a-dozen to a dozen birds, evidently consisting of the old birds and their last brood, two families combining their forces in a few cases. In the heat of the day they seek shelter among bushes, grass or high crops and are then very hard to flush without a dog and, even with such help, they are very loth to rise again a second time.

They appear to be tame little birds and even when feeding in the open they will often run along in front of the disturber rather than take to wing, finally scuttling into the nearest cover when the danger

comes too close.

Like the rest of our Indian Game-Birds, especially the more pugnacious ones such as this bird is, it suffers from the attentions of snarers and bird-catchers of all kinds. They are caught in the Nilg i . b : let traps as described by Miss Cockburn, who writes:—

The natives often rear these Quails as decoy birds. They make small square bamboo cages. In the centre is a small square compartment, in which the decoy bird (male or female) is confined. Little bars run from each corner of this inner compartment to the inner corner of the cage, thus dividing the space which runs all round the former into four verandahs, if I may use the word. The outer sides of these, in fact of the cage itself, let down, and are so arranged that, by the pressure of the bird's feet on the bars, which form the floor of the verandah, they start up again, and enclose whatever is in that particular verandah. Spring cages of this nature are in use, I believe, in many parts of India, though the arrangements for springing the sides vary a good deal.

"The cage, the spring sides duly set, is placed on the ground in some locality where the wild birds are common. The owner hides himself behind a bush, and begins to imitate the bird's note by whistling like them. Instantly his own bird begins to call, and the wild ones all around answer it. In a few minutes these surround the cage, and rush into the verandahs to get at the decoy bird; the spring sides fly up and close with a click, and the would-be combatants are captured. Hearing the sound, the Quail-catcher runs out, transfers the captured bird to his netted bag, re-sets the spring sides, and repeats the process."

Other methods she describes as follows:—

"Sometimes, in addition to the spring cage, a small bamboo frame-work of varying length, and 3 or 4 inches in height, is placed upon the ground in a zigzag shape, partly or entirely surrounding the cage, and distant from it 2 or 3 feet. This little fence is pierced by numerous apertures (just large enough to allow the bird to pass), to each of which is attached a horsehair noose. As this Quail prefers creeping through any hole to flying over any obstacle, however low, many which escape the spring cage are caught in the nooses.

"When the natives come across a very young brood, they catch two or three of them, and put them into a hole about a foot deep, which they dig in the ground. The parent birds, finding that the young ones cannot come out to them, very soon drop into the hole, when the native, who has been watching from behind some bush, creeps softly up, throws a cloth over the

hole, and captures them."

Their flight is like that of the ordinary Quail, very direct and straight but much less noisy. They rise at one's feet and whiz away in a bee-line from the intruder, and then tumble headlong into cover; sometimes the whole covey rises all together, scattering in every direction, at other times they rise singly at intervals but eventually they all collect again together, calling continuously in a soft low Their ordinary call is a whistle which Davison syllabifies as tu-tu-tu-tu-tutu-tutu, etc., and which he says is very ventriloquistic, sometimes sounding far away and at other times as if almost at one's feet.

They feed on grain, seeds and small insects but, the young are at first fed almost entirely on the latter. Although so tiny, they are by no means to be despised as an article of diet, their meat being very white and sweet if rather dry.

CRYPTOPLECTRON ERYTHRORHYNCHUS BLEWITTI.

Blewitt's Bush Quail.

Perdicula erythrorhyncha Ball (Nec. Sykes), Str. Feath., II., p. 428 (1874), (Chota Nagpur and Satpura Hills).

Microperdix blewitti Hume, S. F., II., p. 512 (1874), (Raipur); Ball, ibid, III., p. 294 (1875), (Chota Nagpur and Satpura Hills); Ball, ibid, VII., p. 225 (1878), (Sirguja, Raipur, Nowagarh and Karial); Hume & Marshall, Game-Birds Ind., II., p. 130, pl. (1879); Ogilvie-Grant, Cat. Birds B. M., XXII., p. 204 (1893); Ogilvie-Grant, Hand-B., Game-B. I., p. 158 (1895); Oates, Man. Game-B. India, I., p. 104 (1898); Blanf., Faun. Brit. Ind. IV., p. 122 (1898).

Cryptoplectron erythrorhynchus blewitti Stuart Baker, Hand-L. B.

of I. E., p. 199 (1923).

Vernacular Names.—Sersee-lawa (Mundla, Balaghat, Chanda).

Description, Adult Male.—Similar to M. e. erythrorhynchus, but generally paler and duller; the black gorget round the white throat is very broken; the white sincipital line is broader, and the black forehead narrower; the brown-grey wash on the breast is stronger and comes lower down and there is more white on the feathers of the flanks.

Colours of Soft Parts.—" Iris brown; bill, legs and feet coral-red". (Hume).

Measurements.—Wing 76 to 84 mm.; tail 39 to 44 mm.; tarsus about 26 mm.; culmen 13 to 14 mm.

Female.—Differs in degree of colouration from that of the Painted Bush Quail as does the male.

Measurements.—Of the few sexed females available these are much the same as in the male.

Immature Birds are like the female but show considerable white shaft-lining, both on the breast and upper back. Young males soon acquire the black on the crown.

Distribution.—Central Provinces, North and East of the range of the preceding bird, having been found in Mandla, Balaghat, Seoni, Chandpur, Raipur, Sironcha and Bastar; it occurs round about the Sambalpur District on the East and thence North-East through

Manbhum and Singbhum to Hazaribagh.

Nidification.—There is nothing on record about the nidification of this Quail, but 3 eggs sent me from Chanda in the Central Provinces as those of C. e. erythrorhynchus are undoubtedly those of this bird. They were taken on the 31st August 1889, and were said to have been laid in a scratching in thin Sal-tree and scrub jungle. Possibly on account of their age they are somewhat discoloured, but they certainly appear duller and are more olive-tinted than any eggs I have seen of the typical form. They measure 30.5×24.0 ; 32.0×23.0 ; and 30.0×23.4 mm. A series would probably differ from those of the Painted Bush Quail in averaging somewhat smaller. According to Mr. Blewitt (vide infra) the breeding season is from November to January, but Mr. R. Thompson says that the breeding season begins in June-July, and that young birds are on the wing by September. I twice came across this little Quail on the Ranchi District of Chota

Nagpore, and in both cases the coveys were of full-grown birds, but this was in May and June, possibly before they had begun to think of domestic duties.

Habits.—There has been absolutely nothing recorded about this Quail since the days of Hume and Marshall, when Blewitt wrote:

"This really pretty Bush Quail is extensively distributed throughout the forest tracts and scrub jungle bordering the various low hill ranges in the districts of Raipur and Bhandára, and more sparsely in similar localities in the South-Western sections only of the Sambalpur District. I do not believe it exists in the other half, at least my men and I never secured a specimen. It also affects, at certain seasons, grass patches and fields near hills or jungle.

"This Quail is invariably found associated in coveys of from four to a dozen, and even more. A bevy will, when suddenly alarmed, rise all together, but, owing to their softer plumage, with a less noisy whirr than the other Bush Quails. Indeed in its habits this species is identical with the others; if there is a difference, it is in the call notes, which, in M. blewitti, is more soft and melodious. When feeding, chiefly in the early mornings and evenings, they run actively about, diligently searching for and picking up seeds of sorts and insects. From the statements of the villagers and others, the period of nidification would appear to be from November to January. It was some time in the former month or December that my men brought certain Quail eggs, which they positively stated to be of this species, but without the parent bird. There is, however, this fact to be noticed, that very young birds were shot and snared in February and March in the Raipur district. This Bush Quail is netted in great numbers in the cold and hot seasons. The flesh is very delicate and well flavoured."

The few birds we saw in Ranchi were in flocks of about 7 or 8 birds, and were put up, one flock out of a millet field, the other out of mixed Sal and scrub jungle which we were beating for Spur Fowl. My father bagged four birds out of the two flocks and I manfully missed the lot. The birds rose like Quail, one or two at a time, and not as Mr. R. Thompson says his did, en masse. They flew fast and straight, but not far, and tumbled down as if shot after flying for fifty to sixty yards, in fact they flew much as Common Quail fly but with a much softer whire. They called a rather loud short whistle when rising and, after settling, again called to one another with a very soft, low little note.

Mr. Thompson says they soon become tame in captivity and make charming pets, but that the males are very pugnacious.

CRYPTOPLECTRON MANIPURENSIS MANIPURENSIS. The Manipur Bush Quail.

Perdicula manipurensis Hume, S. F., IX., p. 467 (1880), (Bases

of Eastern Manipur Hills); Hume, ibid, XI., p. 309 (1888).

Microperdix manipurensis Ogilvie-Grant, Cat. B. M., XXII., p. 204 (1893); id., Hand-B., Game-B. I., p. 159 (1895); Oates Man. Game-B. I., p. 107 (1898); Finn, Ibis, 1899, p. 472 (Manipur); Wood, J. A. S. B., LXVIII., pt. 2, p. 110 (1899), (Manipur); Connor, J. B. N. H. S., XVIII., p. 496 (1906); Higgins, ibid, XXII., p. 399 (1913), (Manipur)

Microperdix manipurensis manipurensis, Stuart Baker, Hand-L.B.

of I. E. p. 200 (1923).

Vernacular Names.—Lanz-Soibol (Manipur).

Description, Adult Male.—Forehead, round the eye, cheeks, chin and throat deep rufous chestnut; lores, a line through the eye and a spot behind the ear-coverts white; ear-coverts brown; the whole upper plumage dark slaty-grey barred throughout with velvety black; the bars becoming bold black patches on the scapulars and inner secondaries: quills dark brown, the outer primaries edged with buff and the inner primaries and outer secondaries barred with the same; neck and upper breast ashy grey with black centres, lower breast and abdomen rufous buff, more grey on the flanks and each feather with a black cross formed by a black shaft line and broader cross bar; under tail-coverts black, tipped and spotted with white.

Colours of Soft Parts.—Iris dark brown or hazel; bill dark grey, paler and yellowish at the base; legs and feet orange red to deep vermilion red, probably darker and redder in the breeding season

than at other times; claws light brown.

Measurements.—Wing 80 to 86 mm.; tail 45 to 52 mm.; tarsus about 25 to 26 mm.; culmen 14 to 15 mm.

Weight $2 \cdot 28$ to $2 \cdot 65$ ozs.

Female.—Like the male but duller and paler and without any chestnut on the head; the rufous below is replaced by pale greyish buff and the centre of the chin and throat is very pale grey.

Weight $2 \cdot 37$ to $2 \cdot 94$ -ozs.

Distribution.—Manipur, Cachar, Naga Hills and Khasia Hills.

Nudification.—The only note recorded about the nesting of this bird is that of Captain H. S. Wood, quoted further on, given in the Journal of the Asiatic Society of Bengal, 1899, p. 110, but these eggs were probably those of a Bustard Quail. Once, however, I was

so fortunate as to take their eggs myself.

On the 13th May 1899 whilst marching over the grass-covered hills on the Lere-Baladhun road in North Cachar one of these Quail rose from a patch of rather thin short grass, not more than a couple of feet high, almost at my feet. After bowling it over and picking it up I returned to my original position and hunted round on the off chance of a nest. A few minutes' search revealed to my delight

four almost white eggs snugly ensconced in a hollow scratched in among the roots of the sun grass. There was no nest though a few scraps of grass and leaves lay scattered in the hollow where the eggs lay, points inward, as in the manner of Plover's eggs. These, the eggs, are whiter than any I have seen of *Cryptoplectron erythrorhynchus* and are not so pointed in shape. They measure 30.4×24.1 ; 31.2×23.5 ; 31.2×24.0 and 29.3×24.9 mm.

Habits.—There is so little on record about the Quail that I

quote fully Hume's original note on his find. He writes:-

"Once, and once only, did I meet with this species, and that was near the bases of the hills in the South-Eastern portion of

the Manipur Plain.

"There were two coveys—one of 6 and the other of 5—feeding in the very early morning in a tiny patch of ground a few yards square, thickly covered with large tufts of freshly springing elephant grass. This patch had recently been burnt; probably it had been fired by design, but the fire had not spread, and all around for many hundreds of yards stretched a dense unbroken thicket of elephant grass, 15 feet high, and so thickly set that it was next to impossible to force one's way through it. I did not see the birds myself as I was a few yards to the right, but two of my people, on whom I could rely, saw them distinctly as they ran into the high grass, and described them to me as

small blackish Partridges of an unknown kind.

"There were about two square miles of high grass covering very uneven and broken ground, and it seemed hopeless to beat it, as we had no elephants and no dogs. So sending everyone away quietly, I ensconced myself in the high grass on the opposite side of the little opening to the place at which the birds had disappeared, and stood patiently waiting for about two hours. When it became too late to hope for their reappearance (this kind of bird rarely feeds in the open after 9 a.m.), I recalled my men and set to work to try and burn the grass, as a good breeze was blowing; but after an hour thus wasted, we had to abandon the attempt. The fire would not spread, the grass was nearly dry, it had lost, I mean, all greenness, and nearly all natural moisture, but it had rained incessantly for the previous three days and nights and was still drizzling, and everything was too sodden to take fire. Naturally, I was not going to move until I did get a specimen, so my whole camp, soldiers and sailors (we had a lot of boatmen), camp followers, and all the inhabitants of the viliage were turned out. First we tried cutting, but it soon became obvious that this would be too long a job. So we set to work to divide off the expanse into a number of irregularly sized patches, and this the configuration of the ground with its several ridges, along the crests of which the grass

grew comparatively thinly, greatly facilitated. Although we had fully one hundred men working with their heavy hatchetswords (dahs as the Burmese call them), and working, as only these Easterns can, at trace cutting, it was some hours before we had got the ground into shape, and fully three o'clock before beating commenced. At dusk, by dint of our united efforts, I had knocked over six, of which we had failed to retrieve one. The first bird had convinced me that the species was new to me, and what still more surprised me was that the villagers one and all denied having ever previously seen the bird. We were one and all exhausted with pushing through and through the thicket, and were so cut and scratched by the grass and bruised with stumbles in the broken ground that we were scarcely able to get back to our huts. But I had been very lucky. I had dropped every bird that rose, some of them very difficult shots. They had risen singly and at long intervals.

"Next day I let every one have a long sleep, a good breakfast and a good smoke, and by 10 a.m., we were again in the grass. By 3 o'clock I had knocked down five more, of which, however, we failed to find one. After that we saw no more, and I fully believe that there were only the two coveys of 6 and 5 respectively seen and counted by my people. I have had many hard days shooting in my life, but never any harder than these two.

"But what can we think of the bird? Can it really have been a purely accidental straggler from further East? Not only did the villagers of the place declare that they had never previously seen it, but the same was said in many other villages where I showed skins of it. Moreover, though I beat numbers of other seemingly suitable spots, I never saw another. On the other hand I never again had one-tenth of the number of men beating any patch of grass that I had on those two days, and no bird ever rose on that occasion until it chanced to get so hemmed in between half-dozen beaters that no other alternative remained to it, and about ten days after I shot my nine birds, one of my men saw and shot one in the early dawn just as it was retreating into a patch of grass, also at the foot of the Eastern Hills, but about 50 miles further North.

"I never heard it call, though certainly the birds go normally in coveys, and we separated the individuals composing these widely enough.

"Those killed had fed on grass seeds, pods of a tiny wild lentil, and ants of various colours. In one there were tiny black fragments that looked like portions of the wing-cases of some coleopterous insect."

Major Woods writes of this Quail:-

"During my seven years of residence in Manipur I must have shot over 80 birds of this species there. It is by no means such a rare bird as Hume thinks . . . The Manipuri name for this bird is Lanz-Soibol, literally, the Trap Quail, as the Nagas snare this bird in nooses after the jungle fires. These birds breed in Manipur; the egg as in all the Quail tribe is very large in proportion to the size of the bird, and is of a greenish colour, blotched with patches of brown and black. The nest is merely a hole scratched in the ground and there is no particular nest formation. I have only seen these birds at certain seasons of the year, during the rains and before the jungle fires. They keep to very dense jungle composed entirely of sun and elephant grass, and as they are great runners they are very hard to see. It is only after the jungle fires from February to April that one sees these birds in any quantity. They are always in coveys varying in number from 6 to 8. They are great runners and at first look like black rats running along the ground and are hard to see in the burnt grass the colour of which they so resemble. They will rise readily to dogs and after a short flight drop again into any patch of unburnt grass. I found them in greatest abundance in jungles adjoining nullahs in which there was a certain amount of water,—in fact they are always found close to water. Their call is a low whistle, soft in character, and this is heard chiefly in the evening after one has been firing the jungle, apparently a call for the assembly,.......... have never seen this bird in the low hills. They are associates of the Common Francolin and where one is found the other is also in the locality. When running they keep very close to each other; in this way I have bagged as many as 4 in a single shot."

Mr. J. Higgins, C. S., also sends me the following interesting note on

this Quail:—

"I bagged 88 Hume's Bush Quail during the nine years I was in Manipur, 4 in the first five years and 84 in the last four when I had learnt more about their haunts. My best year produced 36 birds, and on my two best days I bagged 14 and 13 birds respectively, both days shooting in the same locality, at the foot of the hills on the East of the Imphal Valley, near where Col. Wilson got his Wood Snipe. They are to be found anywhere in the Manipur Valley where there is long grass and water, but almost exclusively round the edge of the valley, near the hills, and away from the populous portion of the country. They run in coveys up to a dozen and generally when first disturbed all rise together and then break up and scatter when it is difficult to flush them again, though they do not seem to run far. One day when shooting with Col. Cole we came on a piece of grazing ground

and stream that was thick with different kinds of Quail and we shot 13 Blue-Breasted Quail, 4 Bustard Quail, 9 Hume's Quail and 2 Turnix communis-japonica. We were shooting with beaters and dogs, and one covey of Hume's Bush Quails furnished us with excellent sport. This particular covey instead of rising all in a bunch got up by ones and twos flying right across us so that we succeeded in shooting and picking up nine out of the whole covey of eleven.

"In the open they fly strongly and at a fair height, 6 or 8 feet off the ground. In long grass, however, or a jungly stream they soon drop and give rather difficult shots. I have not noticed them when running, so cannot say if they separate or keep together.

"The flesh of Hume's Bush Quail, which is distinctly a table bird and nearly as big as a Common Quail, is pure white throughout, and I consider it the best eating bird I know, better than Florican, Garganey Teal or Jungle-Fowl.

"I never saw it out of the Manipur Valley and its tributary

valleys."

CRYPTOPLECTRON MANIPURENSIS INGLISI.

Primrose's Bush Quail.

Microperdix inglisi Ogilvie-Grant, Journal B. N. H. S., XIX., p. 1 (1909), (Goalpara, Assam); Inglis, ibid, pp. 2, 3; id., XIX., p. 993 (1910); id., ibid, XXVII., p. 151 (Jalpaiguri, Bengal).

Microperdix manipurensis Thornhill, Journal B. N. H. S., XV.,

p. 527 (1904), (Alipur Duars).

Microperdix manipurensis inglesi Stuart Baker, Hand L. B. of I. E. p. 200 (1923).

Vernacular Names.—Kala Goondri (Assamese).

Description, Adult Male.—Differs from C. m. manipurensis in being somewhat paler and less boldly marked with black both above and below.

Colours of Soft Parts.—" Bill dark grey, base of mandible lighter and in some specimens this is tinged with yellow; tarsus orange-red, toes and back of tarsus lighter, claws light brown. Iris brown." (C. M. Inglis).

Measurements.—The same as in C. m. manipurensis.

Female.—Differs from the female of C. m. manipurensis in being paler and more grey and in having the black markings smaller and less conspicuous.

Colours of Soft Parts.—As in the male.

Young.—Browner than the adult, but more heavily marked with black. Bill above dark grey, with pale tip and base to lower mandible; tarsus fleshy.

Distribution.—The foot hills and adjoining plains of the Eastern Duars, Jalpaiguri, through Assam North of the Brahmaputra as far East as Sadiya where a specimen was shot by Mr. J. Needham.

Nidification.—Unknown.

Habits.—This bird was first obtained by Thornhill in the Alipur Duars and identified as M. manipurensis. Later several were obtained by Mr. A. M. Primrose and Mr. Ch. M. Inglis, specimens being sent home by the latter which were named after him by Mr. Ogilvie-Grant.

Mr. Inglis thus writes about this little Quail:—

"This Quail is the commonest quail got in that garden" (Mornai in Goalpara), "but on account of the nature of the jungle it frequents it is seldom seen and is difficult to get. They are found in damp, dense ekra jungle which grows in the nullahs, and when these get inundated during the rains, they move into higher pieces of ekra and also into the sungrass. We have never seen them on absolutely dry ground except when feeding; at other times they keep exclusively to the damp nullahs. observations are mostly confined to the cold weather, and up to April, as after that the jungle is too heavy to walk through or have beaten. They are excessively local birds, only certain patches of jungle holding them, and they frequent the same spot Although there may be, what appears to us, year after year. identical patches of ekra in the same nullahs and which one would think should contain these quails still none will be found in them. One soon gets to know which patches are worth beating and which Many of these birds must get destroyed in the fierce fires which rage in that part of Assam during the early part of the year. A good method of getting these birds is as follows:—

"A day or two before the beat takes place burn patches in the nullah, leaving those which contain the birds. to be done carefully. This thinning of the jungle gives one a better chance, as it gives the birds fewer places to put up in when flushed and also fewer wounded birds get lost. Without doing this it is very difficult indeed to retrieve wounded birds as they run a lot and have a knack of getting over the ground at a good pace. A good dog or two would of course be of great service both for retrieving and putting up the birds. Burning the grass in front of one as one goes along is of no use, as the birds only run before or else through the fire and will not take They are usually seen in coveys of 4 to 6, but during March and April they collect into larger ones from 6 to 12 birds or perhaps even more. On the 28th March Mr. Primrose wrote that they were exceedingly plentiful and that he picked up 4 during one evening's stroll. The coveys separate on being disturbed, some flying ahead and others back over the beaters. They are not difficult to flush a second and even a third time with a sufficient quantity of good beaters. At first they rise up into the air and they go off with a straight, steady flight, for about 50 yards and then drop suddenly. This habit they have of thus

dropping often makes one believe one has missed one's bird instead of which it is probably stone dead where it fell, whereas those one thinks are killed have merely dropped and run away. On touching the ground they either start running at once or else if the beaters are close up they will squat. It is most difficult to spot them either running over or squatting upon the burnt grass, for their colour matches that of the ash most perfectly. When they squat they sit very closely being sometimes picked up alive by the beaters. Their note is like that of the Painted Bush Quail (Microperdix erythrorhynchus) and is often uttered when the covey separates. As far as we could observe, males outnumbered females. Their food consists principally of seed. They are very occasionally flushed from the edges of the tea. We on several occasions came upon coveys feeding in the open on the burnt ground up to about midday and probably during dull weather they feed there all day. With fair luck and straight powder, two men, one taking each side of the nullah, ought to be able to account for every bird in it. Our biggest bag for a morning was 8 birds, but that I am certain could be easily beaten in a place like Mornai. They are known by the name of Kala goondri at Mornai Tea Estate where all our specimens were obtained. Adults showed signs of breeding in the beginning of March, and we were fortunate enough to obtain a fully fledged young one on the 11th January."

(To be continued.)